Deserts Classroom Activity

The Classroom Activity introduces students to the context of a performance task, so they are not disadvantaged in demonstrating the skills the task intends to assess. Contextual elements include: an understanding of the setting or situation in which the task is placed, potentially unfamiliar concepts that are associated with the scenario; and **key terms** or vocabulary students will need to understand in order to meaningfully engage with and complete the performance task. The Classroom Activity is also intended to generate student interest in further exploration of the key idea(s). The Classroom Activity should be easy to implement with clear instructions.

Please read through the entire Classroom Activity before beginning the activity with students to ensure any classroom preparation can be completed in advance.

Throughout the activity it is permissible to pause and ask students if they have any questions.

As a part of this activity, the facilitator will lead a discussion that uses a Venn diagram as an organizer. The purpose of the Venn diagram is to assist students in their understanding of the key concepts that are included in the performance task. Students will **not** be tested on the use of the Venn diagram.

Resources Needed:

- Chart paper, white board, or chalkboard
- Marker or chalk
- Some method of displaying ancillary materials[1]
- Paper for each small group
- Pencils for each small group
    - Note: Students who need an accommodation may use their preferred tool for writing.

Learning Goal:

- Students will understand the context of the key concepts related to the topic:
    - Deserts are places that have little to no rainfall each year.
    - Deserts are found in different places around the world.

Students will understand the key term:

- **Desert**: Dry land that receives less than ten inches of rainfall per year

Note: This definition is provided here for the convenience of facilitators. Students are expected to understand this key term in the context of the task, not memorize the definition.

[1] Facilitators can decide whether they want to display ancillary materials using an overhead projector or computer/Smartboard, or whether they want to produce them as a handout for students.

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[Purpose: The facilitator's goal is help students understand that deserts are places with little to no rainfall each year. This task will allow students to be active participants as they explore the concept that deserts are found in different places.]

Facilitator says: "Today, we will prepare for the Deserts Performance Task. Let's brainstorm! Turn to a partner and share what you already know about deserts."

[Give the students approximately three minutes to brainstorm with a partner.]

Facilitator says: "Let's share what you know about deserts."

[Choose student volunteers to share what was discussed in the partner pairs. List the students' responses on chart paper, white board, or chalkboard. Students can also take turns writing words or drawing pictures on the board to describe what they know about deserts.]

Facilitator says: "Great job of coming up with all of these ideas about deserts. You should also know that deserts are areas of dry land that receive less than ten inches of rainfall each year."

[If necessary, discuss any student misconceptions about what makes a desert. Some students may think that they all deserts are hot, dry, sandy places. Explain that the only thing common about all deserts is that they receive less than ten inches of rain per year, despite the climate and physical landscape of the area.]

Note: Make sure students arrive at the common understanding that:

- Deserts are places with little to no rainfall each year.
- Deserts are areas of dry land that receive less than ten inches of rainfall per year

[Say and record common understandings on chart paper, white board, or chalkboard.]

Facilitator says: "Now let's think about what it would be like to live in a desert. I want you to discuss the following questions with a partner."

[Write and say the following questions on the chart paper, white board, or chalkboard for students to discuss.]

- What would it feel like to live in a desert?
- What would be around you in a desert?
- What kinds of things would you do in a desert?

[Give the students approximately five minutes to discuss the questions with a partner.]

[List the student responses on the chart paper, white board, or chalkboard.]

Possible student responses (*unscripted*):

- It would feel hot/cold and dry to live in a desert.
- There would be plants, animals, and other people.

- In the desert, you could do the same things that you do in any other places but not things that need a lot of water, like swimming.

[If necessary, respond to student misconceptions by discussing any of the above possible student responses.]

Facilitator says: "Now we are going to discuss photos of two different kinds of deserts."

Note: The following section can be modified to accommodate various teacher-student interaction types such as a teacher-led discussion with the entire class, a teacher-student discussion for remote locations with a single student, or small groups.

[Divide the class into small groups of 3-4.]

[Show **Figure 1: Hot Desert** and **Figure 2: Cold Desert**. Note: For students who are visually impaired, read descriptions below photos.]

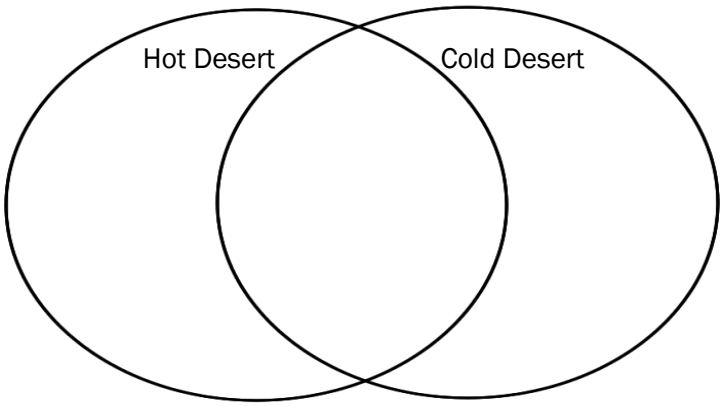
Facilitator says: "How are these deserts like or not like what you expected?"

[Allow a few students to share how the deserts are or are not what they expected.]

Facilitator says: With your group, discuss how these deserts are alike and how they are different. You should record your ideas on the paper that you will be given. After you have finished your discussion, you will share your ideas with the whole class. You have five minutes to brainstorm ideas."

[Distribute paper and pencils for students to record their ideas.]

[While students are discussing, draw a Venn diagram with two overlapping circles on the chart paper, whiteboard, or chalkboard. Label the first circle *Hot Desert* and the second circle *Cold Desert*. After five minutes, have students meet as a class to share their ideas.]



Facilitator says: "In the left circle, I have written Hot Desert and in the right circle, I have written Cold Desert. Any information that is true about both deserts will be put in the middle, where the two circles overlap. Choose someone from your group to share with the rest of the class what your group discussed. First, how are the two deserts alike?"

[Spend 2-3 minutes listing each response in the center of the Venn diagram on the chart paper, whiteboard, or chalkboard.]

Possible student responses (*unscripted*):

- They are dry.
- They receive less than ten inches of rain per year.
- Plants and animals that live there have special features that allow them to survive in such an extreme/harsh environment.

[If necessary, address any student misconceptions by discussing the student responses listed above.]

Facilitator says: "How are the two deserts different?"

[Spend 2-3 minutes listing responses in the appropriate space in the Venn diagram on the chart paper, whiteboard, or chalkboard.]

Possible student responses (*unscripted*):

- The hot desert is sandy.
- The cold desert is icy.
- The hot desert has extremely high temperatures during the day.
- The cold desert has extremely low temperatures most of the year.

[If necessary, address any student misconceptions by discussing the student responses listed above.]

[Extend the discussion to include the following questions if they were not included as a part of the discussion.]

Possible class discussion questions (*unscripted*):

- "Where are the different places that you might find a desert?"
- "What does the land look like in each desert?"
- "What animals are in each kind of desert?"
- "What plants are in each kind of desert?"

Possible student responses (*unscripted*):

- The desert with the sand is in a hot place and the desert with the ice is in a cold place.
- In the hot desert, the land is covered by sand and it is dry. In the cold desert, the land is covered by ice.
- In the hot desert, there are camels and other kinds of animals that can survive in hot, dry weather. In the cold desert, there are penguins, polar bears, and other kinds of animals that can survive in cold, dry weather.
- A cactus is found in a hot desert. These are able to survive without much rainfall because they are built to store water. Plants in the cold desert have to be able to survive the cold temperatures, and they only survive for a short amount of time when it is warmer.

Note: Make sure students arrive at the common understanding that:

- Deserts are found in different places around the world.

[Say and record common understanding on chart paper, white board, or chalkboard.]

Facilitator says: "In your performance task, you will be learning more about deserts. The work you did today should help prepare you for the research and writing you will be doing in the performance task."

Ancillary Materials

Figure 1

Hot Desert

Picture Description: The picture show a hot desert with fine sand covering the ground. There is a camel walking on the sand. There is a tree with a bent trunk and a tree with a straight trunk. There are also some short bushes.

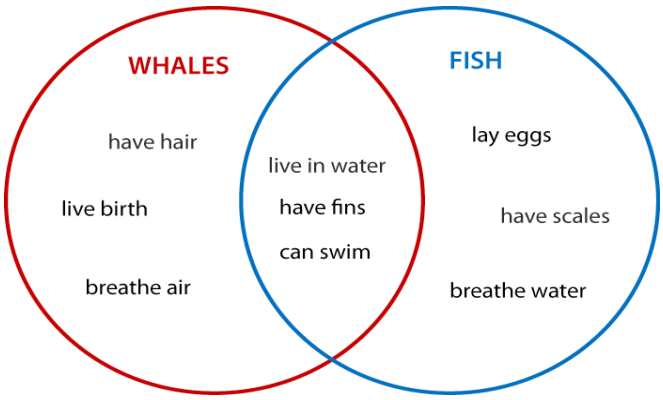
Figure 2

Cold Desert

Picture Description: The picture shows a cold desert where the ground is covered with snow and ice. There are large groups of penguins standing together. There are no trees or bushes.

Teacher Resource for Venn Diagrams

Using the knowledge of the scope and sequence of instruction in the district/school, and the personal experience working with the students who participate in this activity, it may be necessary for the facilitator to provide a brief example of how a Venn diagram works. Below you will find an example of a Venn diagram and a description of how it should be used.



1. Two circles are to be drawn so that the circles intersect in the middle.
2. Each circle is labeled with the topics that are being compared (e.g., *Whales* is the title in the circle on the left and *Fish* is the title in the circle on the right.
3. Any information that is true only of the topic in the circle on the left (e.g., *Whales*) is placed in the portion of the circle that does not intersect with the circle on the right.
4. Any information that is true only of the topic in the circle on the right (e.g., *Fish*) is placed in the portion of the circle that does not intersect with the circle on the left.
5. Any information that is true of both topics is placed in the intersection of the circles.
6. Viewing the Venn diagram, students see the differences (the responses included in the nonintersecting portions of the circles) and the similarities (the responses included in the intersecting portion of the circles) between what is being compared.